

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.



The Villa Park Evergreen News

Published by
THE VILLA PARK EVERGREEN CO.

Greetings.



Beginning with this issue of our catalog it is our intention to publish a short article about facts and problems connected with evergreens. We will try to acquaint our customers with the botanical, geological, and historical background of the evergreen family. We will also discuss in different issues the use of evergreens in plantings as well as the care of evergreens. If our customers will save the different numbers of our Evergreen News, they will have a complete treatise on evergreens.



Botanical Facts About Evergreens.

Evergreens.—For many it means Christmastrees, a Pine in the forest, or a Hemlock---a tree which keeps its green foliage the year around. If, however, we go a little deeper into the subject, we find that there are more than 500 different evergreens. Also there are evergreens which do lose their needles in winter. Bewildering, is it not? To bring some order and clarification in this matter we must turn to botany.

The ancient Greeks had a very poetic way for describing evergreens. It may not have been scientific but certainly was romantic. It seems that Atys, a Grecian shepherd fell in love with beautiful Cybele, the mother of gods., pledging his eternal faith to her. However in time his adoration cooled, and finally he forgot her. In revenge for this perfidity Cybele changed him into a pine tree. One day Jupiter found her sitting under her pine trees shade. Broken-hearted. Jupiter felt sorry for her and in order to comfort her, he promised the Pine would never lose its needles. Cybele would always have at least the shade of her lover.

Beautiful, but botanically it is of course not correct. The botanist makes exact classifications and tells us that the more than 500 different evergreens belong to the family of Gymnosperms. Gymnosperms? A very scientific term, but very simple in every day language. It means a plant which produces naked seeds in contrast with Angiosperms which produce seeds enclosed by a structure called ovaries.

Both the Angiosperms and Gymnosperms belong to a division in the plant family called the Spermatophytes, these include all the different trees, shrubs, flowers, grains and vegetables.

However since we started with the botanical terms, we might just as well go a little farther to find a more comprehensive picture of the world of plants to which naturally the evergreens belong.

The more than 335,000 plants known at present are classified into 4 divisions:

1. Thallophytes: Algae and Fungi
2. Bryophytes: Mosses and Liverworts
3. Pteridophytes: Ferns.
4. Spermatophytes: Trees, shrubs, flowers, grain and vegetables.

As said before the Spermatophytes are subdivided into Angiosperms (Seeds are enclosed into ovaries) and the Gymnosperms (Seeds are borne openly on surface of scales-naked seeds).

Evergreens belong to the subdivision of Gymnosperms.

There are about 500 different evergreens known. The botanist divides this large group into orders. We have four such orders:

1. Cycadales: Palms
2. Ginkgoales; Ginkgo-Maidenhair tree.
3. Gnetales: Mormontea etc.
4. Coniferales: Most of our popular known evergreens.

To bring still some clarification each order is divided into families. So we have in the order of Coniferales the following families:

1. Family Taxacea: All the Yews.
2. Family Pinacea: Firs, Pines, Spruces, Larch, Tamarack, Lebanon and Decdar Cedars.
3. Family Taxodiacea: Redwood, Big Trees, Bald Cypress.
4. Family Cupressacea: Junipers, Arbor Vitae, Retinospora and Cypress.
5. Family Auracariacea: Norfolk Pine.

The different trees in a family are known as genus. If there are different trees in a genus another subdivision called species is created and finally the species are broken down into varieties.

Lets have an example as illustration. Suppose we have a Dwarf White Pine. The botanist classifies this tree as follows:

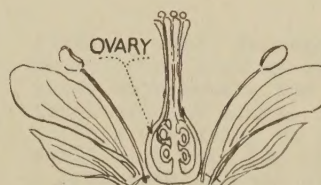
Division: Spermatophytes.
Subdivision-Gymnosperm.
Order: Coniferales.
Family: Pinacea.
Genus: Pine.
Species: White Pine.
Variety: Dwarf White Pine.

Not all of the more than 500 evergreens are in cultivation. Some are found only in tropical zones, others are only known as forest trees. Climatic and geographical conditions reduce again the number of evergreens which will thrive and be known in different localities.

New varieties are added every year, mostly by grafting and occasionally by selection of seedlings. However, in some cases it is more or less only a duplication of known varieties. Fortunately quite a few are discarded again because of lack of merit.

A few words about names of evergreens. Usually only the popular names are used, especially in catalogs for retail business. The wholesale nurseryman is using both the Latin and the popular name. Lets see how this is done. For example the Blue Chinese Juniper:
Latin: *Juniperus Chinensis* Glauca
Popular: Blue Chinese Juniper.

Names of species are of geographical description (Colorado Juniper), of color (Blue Spruce), of persons (Hicks Yew), place of growth (Waukegan Juniper), and other characteristics.



Seed of Angiasperm



Seed of Gymnosperm



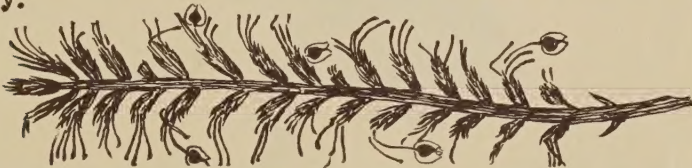
The Villa Park Evergreen News

Published by
THE VILLA PARK EVERGREEN CO.

The Evolution of Evergreens.

At what period the evergreens entered in the picture of evolution of plant life is not clearly established. However, geologists and botanists have in their researches in the past lifted the veil of obscurity to some extent. Although much has to be learned yet, there have been ever changing geological formations and climatic conditions in the more than 2 billion years of the existence of the earth. Periods, not measured in a few generations of man-life, but in millions of years.

Paleobotanists, scientists who study fossil plants, tell us that about 300 million years ago the first evergreens made their appearance. Once established, climatic conditions became so favorable that the larger part of the earth was covered with evergreens in addition to the Ginkgoes and Cycads. Saurians, the great reptiles were roaming among the Cordaites, Walchias and Voltzias, the ancestors of the oldest types of living trees, the evergreens. The formation of our coal beds was then almost completed. This period in the geological history of the earth is called the Mesozoic era. In time many species of evergreens developed; many more than are living today.



A reconstructed branch of a Cordaites.
A distant ancestor of evergreens.

How can the scientist know this? By examining the different layers of rock and by study of fossil plants—either a piece of wood, a leaf, a flower, or a cone imbedded in stone, clay or mud, each leaving its telling tale in the library of nature.



Branch of a Voltzia
A now extinct prehistoric evergreen.

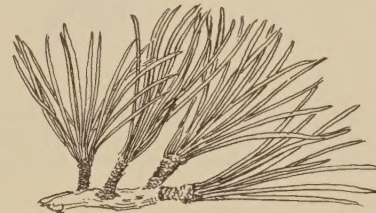
What then were the first evergreens? As said before the picture is not complete. Many facts have to be added, scientific proofs have to be established, where at present there is only guesswork. But even so the Paleobotanists have given us a definite outline for the picture of early evergreens, however dim it is.

So it appears that the first typical evergreens were pine-like or yew-like trees. Which ones developed first is still to be established. From what we know at present, it seems that the pine-like trees came first.

The most outstanding members of this group were the Araucarias, represented today by the Kauris of Australia and the Norfolk Pine. Next came the Sequoias or Bigtrees, two species still growing in California, and the Bald Cypress. Newer conceptions maintain that these two trees are closely related. Still later there developed a group of trees now classified as the Cupressaceae, comprising all the Junipers, Arbor Vitas, Retinosporas and Cypresses. The main stem of these pine-like trees was formed by Firs, Spruces, Larch, Tamaracks and the true Cedars.

The yew-like trees, which are now arranged as Taxaceae, divided themselves in 2 branches. First the Podocarpeae which have a much broader and fleshier leaf as the true Yew. Only the Podocarps of Australia and New Zealand are the surviving members of this branch. Secondly, we have the Taxae with narrow, lance-like leaf of the Yew and the rare Nutmegs of Florida and California. Here again many types have not survived the times.

In the slow process of evolution, requiring many millions of years, the prehistoric evergreens finally assumed the shape and characteristics as we know them today. For instance, we find that some of the Pines of old were quite different than the Pines of today. Some Pines had needle bundles of 25 whereas today, not more than 5 needles are found in a bundle and in one of the species only one needle. (Single Leaf Pine)



Restoration of a twig of a Cretaceous Pine.
Note the large number of needles in a bundle.

The Bigtrees and Redwoods in time past covered many parts of the earth, and are now making their last stand in California. Once there were many species of these trees, now only 2 are left. However recently one other species was discovered in China, the so called Dawn Sequoia. Botanists believe this to be the ancestor of our Bigtrees.

Some of our Bigtrees are more than 3000 years old. What stories the rustle of their leaves could tell us. Some of these trees were living when the Egyptians build the pyramids; when Caesar ruled Rome; they saw the beginning of Christianity; they saw the Dark Age come and go and they were there when the Pilgrims landed on our shore; indeed—the whole written history of mankind, and they are still living and will live for many, many generations to come. Or let us think of the Bald Cypress of Tule in Mexico with an estimated life of more than 5000 years.

Fossil of a Sequoia
From Tertiary deposits
of Alaska.



Although still shrouded in mystery, this hasty glance into the history of evergreens shows us that many years were needed for nature to develop them to their present stage. Some of the species disappeared in this evolution to their perfection. But there are still more than 500 different kinds of evergreens. A fact which should show us all that evergreens are a little more than just Pines or Christmas trees.



The Villa Park Evergreen News

Published by
THE VILLA PARK EVERGREEN CO.

How Evergreens Grow.

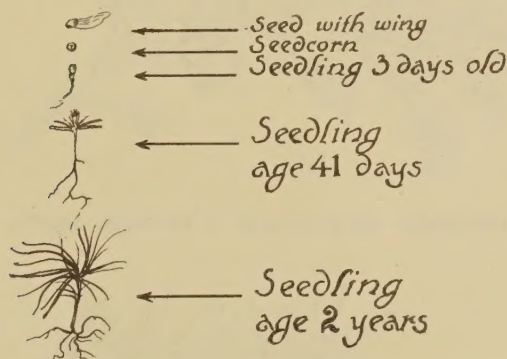
When you buy an evergreen tree, have you ever stopped to consider how much time is required to grow it into a salable specimen? Very few people know the time element or the amount of care which go into the growth of evergreens. For instance: a three to four foot White Pine is from 8 to 10 years old when it is ready to be planted around your home. During this time it had to be several times transplanted, cultivated and several prunings were performed. Taxes had to be paid on the land where the tree grew and there are always certain losses. All these facts have to be taken in consideration in arriving at a fair price for the tree. To get a better idea of the above mentioned facts, let's take a closer look step by step in the growing of evergreens. Most evergreens are grown from seed, some from cuttings and some by grafting. Each method requires about the same amount of time and care.

As an example we selected the growth of the White Pine, one of our most beautiful native evergreens. The White Pine is raised from seed. The seeds which are embedded in the cone are freed from the wings and sown in the ground. To give you an idea of the size of the seed: there are 28000 to the pound.

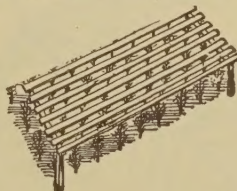


A branch of the White Pine with cone and winged seed.

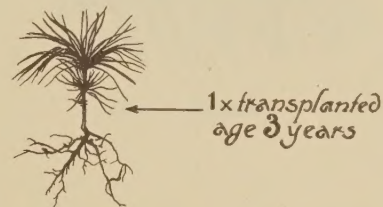
The seed-bed has to be especially prepared. The soil has to be pulverized in order to get good results. Even with this precaution not all seeds will sprout, hardly more than one half. It takes from 50 to 60 days before germination takes place.



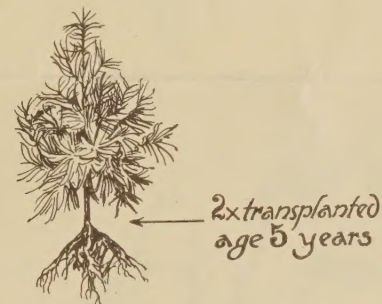
The seedlings are left in the bed from 2 to 3 years. During this time they have to be kept free from weeds, a process done by hand. Also shade has to be provided during the hot summer weather.



After 2 or 3 years the first transplanting is done. These young trees have still to be shaded and weeded by hand.



In two years another transplanting takes place. After this the trees can either be left in the bed but mostly they are transplanted to the nursery rows.



The third and final transplanting is done in another two years. The trees are now ready to grow into the right size and shape. Some corrective pruning may have to be done during this time. Of course cultivating was necessary during all this time.



3x transplanted age 10 years

From this short treatise you can easily see how much time and care was required to raise a salable evergreen. So when you buy an evergreen, it is well to keep these facts in mind.



The Villa Park Evergreen News

Published by

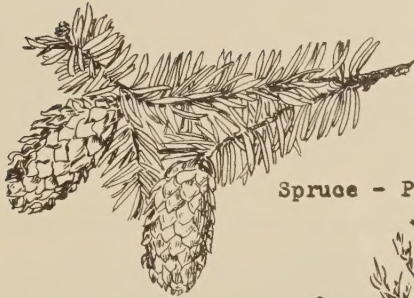
THE VILLA PARK EVERGREEN CO.

The Foliage Of Evergreens.

Evergreens- this word means to most people Christmas trees. When, however they decide to plant some evergreens around their home the discovery is made that there are quite a few different evergreens of different shape, color or foliage. How then can a distinction be made? the easiest way is to compare the foliage. In order to assist our customers we give below the foliage of the most common evergreens.



Pine - Pinus.



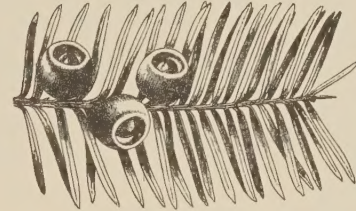
Spruce - Picea.



Plume Cypress - Retinospora Plumosa.



Fir - Abies.



Yew - Taxus



Hemlock - Tsuga.



Juniper - Juniperus.



Arbor Vitae - Thuja



The Villa Park Evergreen News

Published by
THE VILLA PARK EVERGREEN CO.



Care of Evergreens in Winter

The main requirement in the winter care of evergreens is to supply plenty of moisture. Although evergreens are to a certain degree dormant in winter, there is always some activity going on in the trees caused by winds and bright sun drawing moisture from the foliage.

An especially good watering should be given just before the ground freezes solidly. This will make the roots freeze wet and retain the necessary moisture. If the winter is dry, some watering should be done even if the ground is frozen.

Evergreens planted in Fall should be mulched with dead leaves or straw, at least 8 to 10 inches deep. This mulch should be weighed down with boards or heavy sticks and be left on all winter. This will prevent alternate freezing and thawing, which is so harmful to young roots. The mulch should be removed in Spring.

After a heavy snowfall it may be necessary to remove the snow from the branches of the evergreens. The weight of the snow, especially when wet, may cause the branches to break. A long handled broom is good for this purpose.



Evergreens with more than one stem, such as Irish Junipers, may be tied up with soft cord as illustrated below.

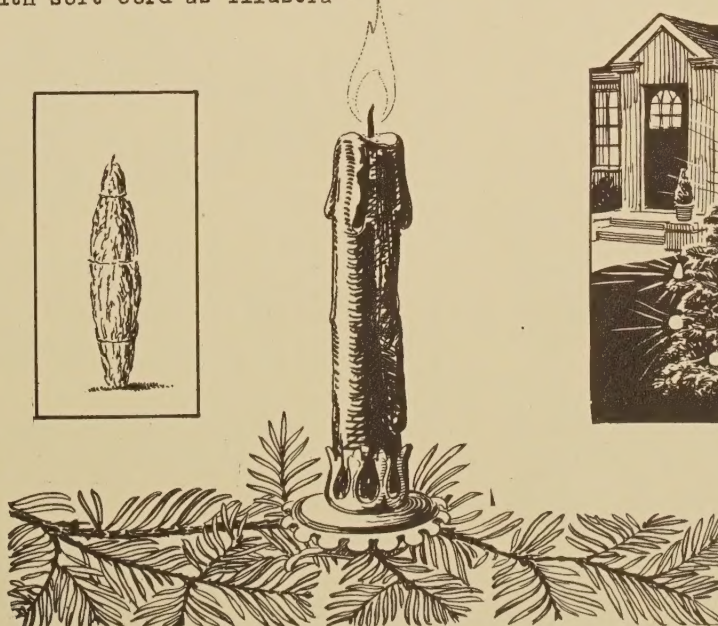


Heavy sleet can cause great harm to evergreens, especially to Junipers. The branches are loaded down and cause the tree to bend or even snap. If the sleet remains on the trees a long time they may remain bent even after the sleet is gone. See illustration below. Under no circumstances should one try to straighten the tree as long as the branches and the trunk are frozen. After the tree is pliable a long stick may be used to straighten the tree.



At Christmas time thousands and thousands of living Christmas trees will be adorned with electric lights and shine forth in all their glory. Indeed a wonderful sight and a very laudable custom. However may we add a word of caution. When you fasten the strings of lights be careful not to break the fine branches and do not use lights that are too powerful.

With these few precautions your evergreens ought to come through the winter in fine shape and be ready for next Spring with their beautiful new growth.





The Villa Park Evergreen News

Published by
THE VILLA PARK EVERGREEN CO.

Dogs and Evergreens.

Dogs and evergreens. This is a sore chapter in the friendship between man and dog. Historically dog is man's best friend. Many are the stories of mutual affections. However the relations become somewhat strained when even the best friend starts to ruin his master's evergreens. Still greater repercussions result when the damage is done to the neighbor's prized possessions.

Neighborly friendships not only break, but in some cases even lawsuits may follow.

What's to be done? Many solutions to this knotty problem have been suggested. But the number of suggestions are in themselves a sign that it is not so easy for the right answer.

It is understandable that a person gets angry if wild running dogs deface his evergreens for which he has probably spend a good deal of money and that he feels like shooting the offending dogs.

But this is not the way out. Milder measures have to be employed. We would like to enumerate some, one or the other may help you.

Some years ago the United States Department of Agriculture made some research along this line and suggested the use of Nicotene Sulphate spray. Dogs and also cats do not like the odor of Nicotene Sulphate and will avoid the sprayed area.



One drawback of this method is that the spray will have to be repeated after a heavy rain or about once a month. This holds good for the several other preparations which are on the market now. They all have embodied the principle of repellent odor.

Some one has suggested tobacco dust scattered around the tree. Others have employed red pepper. Here again repeated applications would be necessary.

Lately an impregnated string has come on the market. It promises to be a more durable medium. The dark colored string can be strung around the branches. It is supposedly hardly noticeable and of a longer effect. Time of course will have to prove its value.

Moth balls also have been used. They should be put about a foot away from the branches. Their odor seems to be objectionable to dogs.

Another method is the use of mouse traps set around the evergreens. Reports one owner of evergreens: "I bought half a dozen mouse traps, set them without baiting and put them on the ground a couple feet away from the evergreens. The dogs smelled around the traps and sprang them. To say the dogs were scared half to death is putting it mildly. They now make a big semicircle when they go past our place". No harm trying this method.



The planting of Barberry bushes around evergreens is still another approach to this problem. Or you may only spread a few twigs from Barberry around the tree.

Low wooden or iron fences give some protection. However if heavy snow is on the ground they are of little help. Besides they usually spoil the appearance of the planting.

Still another suggestion worth trying is the use of tempered black wire stuck up at the right angle to tickle the dogs where they could not tolerate it.



There are some suggested methods against we strongly advise. Slingshots or BB guns should not be employed no matter how enraged one may be about the harm done by dogs.

Also the use of electric fences are dangerous. A heavy rain, wet ground and a electrically charged wire are a danger not only to dogs but also to human beings. A lawsuit may be the result. A friendly letter or talk with your neighbor may be the better way to abate the nuisance than slingshots or BB guns.

Use the above mentioned harmless methods first before you consider anything else. Or may be you have found a better way to keep dogs away from evergreens and we would be glad if you will let us know about them.

